

## SECTION II—CLAIMS

1. (Currently Amended) A microelectronic assembly comprising:
  - a substrate having bonding pads disposed on a mounting surface thereof, the bonding pads including a ferromagnetic material therein;
  - a solidified solder disposed on the bonding pads; and
  - a surface mount component bonded to the substrate by way of the solidified solder and including a magnetized magnetic layer disposed on a substrate side thereof, the magnetized magnetic layer to cooperate with the ferromagnetic material in the bonding pads to establish a magnetic force of a sufficient magnitude to hold the surface mount component on the substrate before and during soldering.
2. (Original) The assembly of claim 1, wherein the surface mount component is a capacitor.
3. (Previously Presented) The assembly of claim 1, wherein the bonding pads on the substrate comprise Electroless Nickel/Immersion Gold (ENIG) pads, and wherein the ferromagnetic material in the bonding pads comprise nickel.
4. (Currently Amended) The assembly of claim 1, wherein soldering comprises a reflow process, and wherein the magnetized magnetic layer comprises a magnetic material having a ~~Coulier~~ Curie temperature that is above a peak reflow temperature range of the solder.
5. (Currently Amended) The assembly of claim 1, wherein the magnetized magnetic layer comprises a magnetic material having a remanence adapted to have a

minimum impact on a performance of circuits within the SMT component or within the substrate.

6. (Currently Amended) The assembly of claim 1, wherein the magnetized magnetic layer comprises a magnetic material including at least one of nickel and a ferronickel alloy.
7. (Currently Amended) The assembly of claim 1, wherein the magnetized magnetic layer has a thickness between about 1 micron and about 5 microns.
8. (Currently Amended) The assembly of claim 1, wherein the magnetized magnetic layer is one of a continuous layer and a discontinuous layer.
9. (Currently Amended) The assembly of claim 8, wherein the magnetized magnetic layer comprises sublayers defining a pattern adapted to minimize impact on circuits of the surface mount component from a magnetic field of the magnetized magnetic layer.
10. (Currently Amended) The assembly of claim 8, wherein the magnetized magnetic layer comprises sublayers defining a pattern corresponding to a pattern of the bonding pads on the substrate.
- 11-18. (Canceled)
19. (Currently Amended) A surface mount component bonded to bonding pads of a substrate by way of solidified solder, the surface mount component including a magnetized magnetic layer disposed on a substrate side thereof, the magnetized magnetic layer to cooperate with a ferromagnetic material in the bonding pads to

- establish a magnetic force of a sufficient magnitude to hold the surface mount component on the substrate before and during soldering.
20. (Original) The surface mount component of claim 19, wherein the surface mount component is a capacitor.
  21. (Currently Amended) The surface mount component of claim 19, wherein soldering comprises a reflow process, and wherein the magnetized magnetic layer comprises a magnetic material having a ~~Courier~~ Curie temperature that is above a peak reflow temperature range of the solder.
  22. (Currently Amended) The surface mount component of claim 19, wherein the magnetized magnetic layer comprises a magnetic material having a remanence adapted to have a minimum impact on a performance of circuits within the SMT component or within the substrate.
  23. (Currently Amended) The surface mount component of claim 19, wherein the magnetized magnetic layer comprises a magnetic material including at least one of nickel and a ferronickel alloy.
  24. (Currently Amended) The surface mount component of claim 19, wherein the magnetized magnetic layer has a thickness between about 1 micron and about 5 microns.
  25. (Currently Amended) The surface mount component of claim 19, wherein the magnetized magnetic layer is one of a continuous layer and a discontinuous layer.
  26. (Currently Amended) The surface mount component of claim 25, wherein the magnetized magnetic layer comprises sublayers defining a pattern adapted to

minimize impact on circuits of the surface mount component from a magnetic field of the magnetized magnetic layer.

27. (Currently Amended) The surface mount component of claim 25, wherein the magnetized magnetic layer comprises sublayers defining a pattern corresponding to a pattern of the bonding pads on the substrate.

28. (Currently Amended) A system comprising:

a microelectronic assembly including:

a substrate having bonding pads disposed on a mounting surface thereof, the bonding pads including a ferromagnetic material therein;

solidified solder disposed on the bonding pads[[:]] .and

a surface mount component bonded to the substrate by way of the solidified solder and including a magnetized magnetic layer disposed on a substrate side thereof, the magnetized magnetic layer being adapted to cooperate with the ferromagnetic material in the bonding pads to establish a magnetic force of a sufficient magnitude to hold the surface mount component on the substrate before and during soldering; and

a main memory coupled to the microelectronic assembly.

29. (Original) The system of claim 28, wherein the surface mount component is a capacitor.

30. (Original) The system of claim 28, wherein the bonding pads on the substrate comprise ENIG pads, and wherein the ferromagnetic material in the bonding pads comprises nickel.